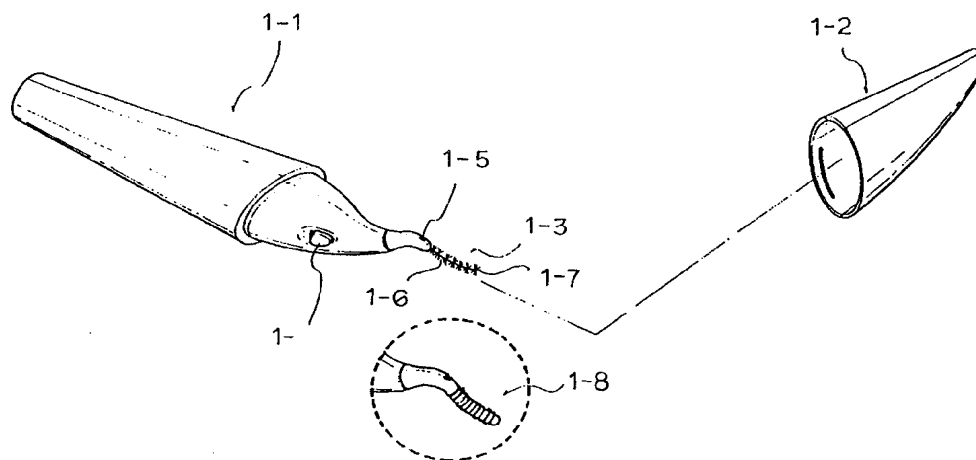




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>A61M</b>	<b>A2</b>	<b>(11) International Publication Number:</b> <b>WO 99/22782</b> <b>(43) International Publication Date:</b> 14 May 1999 (14.05.99)
<b>(21) International Application Number:</b> PCT/KR98/00329 <b>(22) International Filing Date:</b> 22 October 1998 (22.10.98) <b>(30) Priority Data:</b> 1997/30794 U      1 November 1997 (01.11.97)      KR 1997/31055 U      5 November 1997 (05.11.97)      KR <b>(71)(72) Applicant and Inventor:</b> CHOI, Jae, Jung [KR/KR]; 260-106, Jugong Apartment, 4(23/4), Wonmun-dong, Gwacheon-si, Gyunggi-do 427-030 (KR). <b>(74) Agent:</b> KIM, Kyong, Shik; Heung Yong Building, 8th floor, 648-26, Yeoksam-dong, Kangnam-gu, Seoul 135-080 (KR).		<b>(81) Designated States:</b> AT, CH, CN, DE, ES, GB, JP, RU, SG, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). <b>Published</b> <i>Without international search report and to be republished upon receipt of that report.</i>

**(54) Title:** BEAUTY ART APPARATUS FOR DRESSING EYELASHES



**(57) Abstract**

A beauty art apparatus for dressing eyelashes is disclosed. A temperature sensitive substance is painted on the body of the apparatus so as to make it easy to recognize the optimum heating, and both a heat generating means and a brush for applying a mascara fluid are provided, so that eyelashes can be dressed and curled. Particularly, the heat generating device utilizes a bioceramic, so that the dressed or curled eyelashes can be maintained for a long time, thereby contributing to the human health. The beauty art apparatus further includes a polymer switch installed within the body part, for disconnecting the power source upon reaching a certain temperature. A battery is connected to an input terminal of the polymer switch, and a socket is connected to an output terminal of the polymer switch. A mascara pigment dying and heating part having a brush and a heating wire is connected to a plug, the plug being mated into the socket. Therefore, the eyelash dressing can be carried out without being restricted by the site.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

<b>AL</b>	Albania	<b>ES</b>	Spain	<b>LS</b>	Lesotho	<b>SI</b>	Slovenia
<b>AM</b>	Armenia	<b>FI</b>	Finland	<b>LT</b>	Lithuania	<b>SK</b>	Slovakia
<b>AT</b>	Austria	<b>FR</b>	France	<b>LU</b>	Luxembourg	<b>SN</b>	Senegal
<b>AU</b>	Australia	<b>GA</b>	Gabon	<b>LV</b>	Latvia	<b>SZ</b>	Swaziland
<b>AZ</b>	Azerbaijan	<b>GB</b>	United Kingdom	<b>MC</b>	Monaco	<b>TD</b>	Chad
<b>BA</b>	Bosnia and Herzegovina	<b>GE</b>	Georgia	<b>MD</b>	Republic of Moldova	<b>TG</b>	Togo
<b>BB</b>	Barbados	<b>GH</b>	Ghana	<b>MG</b>	Madagascar	<b>TJ</b>	Tajikistan
<b>BE</b>	Belgium	<b>GN</b>	Guinea	<b>MK</b>	The former Yugoslav Republic of Macedonia	<b>TM</b>	Turkmenistan
<b>BF</b>	Burkina Faso	<b>GR</b>	Greece	<b>ML</b>	Mali	<b>TR</b>	Turkey
<b>BG</b>	Bulgaria	<b>HU</b>	Hungary	<b>MN</b>	Mongolia	<b>TT</b>	Trinidad and Tobago
<b>BJ</b>	Benin	<b>IE</b>	Ireland	<b>MR</b>	Mauritania	<b>UA</b>	Ukraine
<b>BR</b>	Brazil	<b>IL</b>	Israel	<b>MW</b>	Malawi	<b>UG</b>	Uganda
<b>BY</b>	Belarus	<b>IS</b>	Iceland	<b>MX</b>	Mexico	<b>US</b>	United States of America
<b>CA</b>	Canada	<b>IT</b>	Italy	<b>NE</b>	Niger	<b>UZ</b>	Uzbekistan
<b>CF</b>	Central African Republic	<b>JP</b>	Japan	<b>NL</b>	Netherlands	<b>VN</b>	Viet Nam
<b>CG</b>	Congo	<b>KE</b>	Kenya	<b>NO</b>	Norway	<b>YU</b>	Yugoslavia
<b>CH</b>	Switzerland	<b>KG</b>	Kyrgyzstan	<b>NZ</b>	New Zealand	<b>ZW</b>	Zimbabwe
<b>CI</b>	Côte d'Ivoire	<b>KP</b>	Democratic People's Republic of Korea	<b>PL</b>	Poland		
<b>CM</b>	Cameroon	<b>KR</b>	Republic of Korea	<b>PT</b>	Portugal		
<b>CN</b>	China	<b>KZ</b>	Kazakhstan	<b>RO</b>	Romania		
<b>CU</b>	Cuba	<b>LC</b>	Saint Lucia	<b>RU</b>	Russian Federation		
<b>CZ</b>	Czech Republic	<b>LI</b>	Liechtenstein	<b>SD</b>	Sudan		
<b>DE</b>	Germany	<b>LK</b>	Sri Lanka	<b>SE</b>	Sweden		
<b>DK</b>	Denmark	<b>LR</b>	Liberia	<b>SG</b>	Singapore		
<b>EE</b>	Estonia						

## BEAUTY ART APPARATUS FOR DRESSING EYELASHES

## TECHNICAL FIELD

The present invention relates to a beauty art  
5 apparatus for dressing eyelashes. More specifically, the  
present invention relates to a beauty art apparatus for  
dressing eyelashes, in which a temperature sensitive  
substance is painted on the body of the apparatus so as to  
make it easy to recognize the optimum heating, and both  
10 a heat generating means and a brush for applying a mascara  
fluid are provided, so that eyelashes can be dressed and  
curled. Particularly, the heat generating means employs  
a bioceramic material, so that the dressed or curled  
eyelashes can be maintained for a long time, thereby  
15 contributing to the human health.

## BACKGROUND ART

Generally, women are greatly concerned with their  
external beauty, and consume much time to beautify  
20 themselves. They look into mirrors in mornings and  
evenings to beautify themselves by cosmetic makeup or other  
means.

There are various methods of beautifying themselves,  
and one of the methods is to dress eyelashes. In dressing  
25 eyelashes, mostly the eyelashes are curled or dyed by  
using the mascara fluid.

The mascara fluid is applied to eyelashes by using a  
brush. The mascara fluid is kept in a mascara vessel. The  
mascara vessel includes: a cylindrical or polygonal body  
30 having a fastening part, for containing the mascara fluid;  
a cap for being coupled to the fastening part of the body;  
and a rod having a brush and fixed to the center of the  
cap. When the body and the cap are coupled together, the  
rod with the brush is disposed within the body, being  
35 dipped into the mascara fluid.

If the cap is threadably turned anti-clockwise, the cap is separated from the body. If the cap is detached from the body, then the rod with the brush is taken out integrally with the cap, with the mascara fluid being  
5 adhered on the brush. Then the mascara fluid can be applied to the eyelashes by sliding the brush along the eyelashes from below upward. When the mascara fluid is applied to the eyelashes, the eyelashes become thick in their color, and are curled upward.

10 However, when the eyelashes are dressed with the mascara fluid, the rod with the brush has to be dipped into the mascara reservoir many times. Therefore, the dressing becomes troublesome, and much time is consumed.

Further, if sweat or tear flows down after the  
15 dressing with the mascara fluid, then the mascara fluid may be melted to flow down together with the sweat or tear, thereby decreasing the cosmetic effect. Worse than this, an abnormality may occur in the eyes owing to the infiltration of the mascara fluid. Particularly, if the  
20 mascara fluid contains a harmful ingredient, the health of the person may be affected, or the visual function may be adversely affected.

Further, if simply the mascara fluid is used, the curled eyelashes may be loosened easily. In order to  
25 prevent this phenomenon, if a heating wire is used, the eyes may be tired easily, or the visual ability may be harmed.

#### DISCLOSURE OF INVENTION

30 The present invention is intended to overcome the above described disadvantages of the conventional techniques.

Therefore it is an object of the present invention to provide a beauty art apparatus for dressing eyelashes, in  
35 which the curling of the eyelashes and the applying of the

mascara fluid to the eyelashes can be simultaneously carried out by using a brush and a heat generating means without being restricted by the sites, thereby promoting the convenience of the use.

5           In achieving the above object, the beauty art apparatus for dressing eyelashes according to the present invention includes: a body part; a heating part projecting from one end of the body part; and a heat generating means installed as a portion of the heating part. The beauty art apparatus further includes: a  
10           polymer switch installed within the body part, for disconnecting the power source upon reaching a certain temperature; a battery connected to an input terminal of the polymer switch; a socket connected to an output  
15           terminal of the polymer switch; and a mascara pigment dying and heating part having a brush and a heating wire connected to a plug, the plug being mated into the socket.

#### BRIEF DESCRIPTION OF THE DRAWINGS

20           The above object and other advantages of the present invention will become more apparent by describing in detail the preferred embodiment of the present invention with reference to the attached drawings in which:

FIG. 1 is a perspective view showing an embodiment of  
25           the apparatus of the present invention;

FIG. 2 is an exploded perspective view showing the principle of the present invention;

FIG. 3 is a longitudinal sectional view of FIG. 2;

FIG. 4 illustrates the utility of the present  
30           invention;

FIG. 5 is a longitudinal sectional view of FIG. 4;

FIG. 6 is an exploded perspective view showing another embodiment of the apparatus of the present invention;

FIG. 7 is a longitudinal sectional view of FIG. 6;

35           FIG. 8 illustrates still another embodiment of the

apparatus of the present invention; and

FIG. 9 is a longitudinal sectional view of FIG. 8.

#### BEST MODE FOR CARRYING OUT THE INVENTION

5       The present invention will be described for respective embodiments referring to the attached drawings in detail below.

#### <First embodiment>

10       FIG. 1 is a perspective view showing an embodiment of the apparatus of the present invention.

As shown in this drawing, the apparatus according to the present invention includes: a body part 1-1, a cap part 1-2, and a heating part 1-3. The body part 1-1 includes: a battery (not illustrated) installed within one portion thereof; and an on-off switch 1-4 installed within another part thereof.

20       The heating part 1-3 is installed at a side of the on-off switch 1-4 with its heating wire 1-7 exposed to the outside of the body part 1-1. On a portion adjacent to the heating part 1-3, there is coated with a temperature sensitive substance 1-5 to show the optimum heating level. A brush is attached on the heating wire 1-7 to form a heating part 1-3, and this heating part 1-3 can be substituted by a spiral heating part 1-8 which is of a ceramic structure, and which is to be described later.

25       The cap part 1-2 is coupled to one end of the body part 1-1 where the on-off switch 1-4 is disposed. The cap part 1-2 covers the on-off switch 1-4 and the heating part 1-3 to protect them.

30       FIG. 2 is an exploded perspective view showing the principle of the present invention. FIG. 3 is a longitudinal sectional view of FIG. 2, showing the coupled state of the apparatus of the present invention. The apparatus includes: a body part 2-1, a heating part 2-3

coupled to one end of the body part 2-1, and a cap part 2-2 for being coupled to the one end of the body part 2-1.

The body part includes: a battery 2-4 inserted into the body part 2-1; a positive-negative terminal 2-5 for connecting the battery 2-4 to the inside of the body part 2-1; an on-off switch 2-6 electrically connected to the terminal 2-5, and installed on a tapered leading portion of the body part 2-1; a polymer switch 2-7 with its input terminal electrically connected to the on-off switch and installed within the body part 2-1; and a protruded part 2-9 extending from the center of the tapered leading end of the body part 2-1, and having a socket 2-8 connected to an output terminal of the polymer switch 2-7. The polymer switch can be substituted by another switch or a proper fuse.

The heating part 2-3 receives electric power from the polymer switch 2-7 to produce heat up to a temperature of 65 - 80°C. The heating part 2-3 includes: a plug 2-10 fixed to the socket of the protruded part 2-9 to be connected to an output terminal of the polymer switch 2-7; a straight heating wire 2-11 installed on the plug 2-10; and a plurality of brushes 2-12 fixed onto the heating wire 2-11.

The cap part 2-2 includes: a mascara fluid vessel 2-13 for storing a mascara fluid; a guide hole 2-14 communicating to the mascara fluid vessel 2-13, and for receiving the protruded part 2-9 of the body part 2-1 and the plug 2-10 of the heating part 2-3; and a female threaded part 2-16 for being threadably coupled to a male threaded part 2-15 of the body part 2-1.

The on-off switch 2-6 of the body part 2-1 is installed on the tapered leading end portion of the body part 2-1, and therefore, it is hidden when the body part 2-1 and the cap part 2-2 are coupled together.

The heating wire 2-11 of the heating part 2-3 can be

directly connected to an output terminal of the polymer switch 2-7 without using the socket 2-8 and the plug 2-10.

The apparatus of the present invention constituted as described above can be used in the following manner.

5 First the cap part 2-2 which has been threadably coupled to the body part 2-1 through the female threaded part 2-16 and the male threaded part 2-15 is turned anti-clockwise, and thus, the cap part 2-2 is detached from the body part 2-1. Then if the on-off switch 2-6 is turned  
10 on, an electric current is supplied from the battery 2-4 through the input terminal to the polymer switch 2-7. This electric current flows through the output terminal of the polymer switch 2-7 and the socket 2-8 and the plug 2-10 of the heating part 2-3 to the heating wire 2-11 to generate  
15 heat.

Thus when heat is generated in the heating wire 2-11 of the heating part 2-3, the brushes 2-12 and the heating wire 2-11 are contacted to the eyelashes, and are made to slide upward on the eyelashes to apply the mascara fluid  
20 onto the eyelashes and to curl the eyelashes. Under this condition, the eyelashes are easily curled by the heating wire 2-11, and therefore, the eyelashes can be neatly beautified.

25 <Second embodiment>

FIG. 4 illustrates the utility of the present invention. FIG. 5 is a longitudinal sectional view of FIG. 4. As shown in these drawings, the beauty art apparatus includes: a body part 3-1 with a battery 3-4 installed  
30 therein; a heating part 3-3 coupled to the body part 3-1; and a cap part 3-2 for being coupled to the end portion of the body part 3-1, where the heating part 3-3 is coupled.

The body part 3-1 has the same constitution as that of the first embodiment. An on-off switch 3-6 is installed  
35 on a tapered leading portion of the body part 3-1, so that



the on-off switch would be hidden when the cap part 3-2 is coupled to the body part 3-1. Further, a polymer switch 3-7 of the body part 3-1 may be substituted by another switch or a fuse like in the first embodiment.

5           The heating part 3-3 includes: a plug 3-10 fixed to the socket 3-8 of the protruded part 3-9 to be connected to an output terminal of the polymer switch 3-7; a heat generating means 3-19 including a heating wire 3-11 (connected to a plug 3-10) and having a groove 3-17 and a  
10           plurality of guide grooves 3-18; and a plurality of brushes 3-12 fixed along the lower side of the heat generating means 3-19 oppositely from the side where the groove 3-17 is formed.

          The cap part 3-2 includes: a mascara fluid vessel 3-  
15           13 for storing a mascara fluid; a guide hole 3-14 communicating to the mascara fluid vessel 3-13, and for receiving the protruded part 3-9 of the body part 3-1 and the plug 3-10 of the heating part 3-3, and having projected guiders 3-20 for being inserted into the  
20           plurality of the guide grooves 3-18; and a female threaded part 3-16 for being threadably coupled to a male threaded part 3-15 of the body part 3-1.

          The guiders 3-20 elongately project from the inside wall of the guide hole 3-14, and the guiders 3-20 make the  
25           heat generating means 3-19 separated from the inside wall of the guide hole 3-14. That is, the guiders 3-20 keep the plurality of brushes separated from the inside wall of the guide hole 3-14, and thus, when the cap part 3-2 is detached from the body part 3-1, the mascara fluid held  
30           in the brushes is preserved without being dropped.

          A filter 3-21 is installed on the upper portion of the inside wall of the guide hole 3-14 of the cap part 3-2, and therefore, when the heat generating means 3-19 withdraws from the mascara fluid vessel, the mascara fluid  
35           adhered in the guide grooves is neatly wiped off.

In the structure of FIGs. 4 and 5, the heat generating means 3-19 and the brushes 3-12 are separated from each other. Therefore, the dying and the curling for the eyelashes can be separately carried out.

5 The apparatus of the present invention constituted as described above can be used in the following manner.

First the cap part 3-2 which has been threadably coupled to the body part 3-1 through the female threaded part 3-16 and the male threaded part 3-15 is turned anti-  
10 clockwise, and thus, the cap part 3-2 is detached from the body part 3-1. Then if the on-off switch 3-6 is turned on, an electric current is supplied from the battery 3-4 through the input terminal to the polymer switch 3-7. This electric current flows through the output terminal of the  
15 polymer switch 3-7 and the socket 3-8 and the plug 3-10 of the heating part 3-3 to the heat generating means 3-19 to generate heat.

Thus when heat is generated in the heat generating means 3-19 of the heating part 2-3, the brushes 2-12 are  
20 contacted to the eyelashes, and are made to slide upward on the eyelashes to apply the mascara fluid onto the eyelashes. At the same time the heat generating means 3-19 is manipulated to curl the eyelashes to the desired form. Under this condition, when the body part 3-1 is detached  
25 from the cap part 3-2, the mascara fluid adhered on the heat generating means 3-19 is neatly wiped off by the filter 3-21, and therefore, the heat generating means 3-19 can release heat in an efficient manner. Thus the eyelashes are easily curled by the heating wire 2-11, and  
30 therefore, the eyelashes can be neatly beautified.

<Third embodiment>

FIG. 6 is an exploded perspective view showing another embodiment of the apparatus of the present invention. FIG.  
35 7 is a longitudinal sectional view of FIG. 6.

As shown in the drawings, the beauty art apparatus includes: a body part 4-1 with a battery 4-4 installed therein; a heating part 4-3 coupled to the body part 4-1; and a cap part 4-2 for being coupled to the end portion of the body part 4-1, where the heating part 4-3 is coupled.

The body part 3-1 has the same constitution as that of the first and second embodiments. An on-off switch 4-6 is installed on a tapered leading portion of the body part 4-1, so that the on-off switch 4-6 would be hidden when the cap part 4-2 is coupled to the body part 4-1. Further, a polymer switch 4-7 of the body part 4-1 may be substituted by another switch or a fuse like in the first embodiment.

The heating part 4-3 receives electric power from the polymer switch 4-7 to produce heat up to a temperature of 65 - 80°C. The heating part 4-3 includes: a plug 4-10 fixed to the socket 4-8 of a protruded part 4-9 to be connected to an output terminal of the polymer switch 4-7; a bioceramic member 4-12 for accommodating a heating wire 4-11, the heating wire 4-11 being connected to the plug 4-10; and a coated film 4-17 surrounding the bioceramic 4-12.

Further, a coated film 4-13 is formed on the bioceramic member 4-12 in such a manner that a portion of the bioceramic member would be open. Thus, the heat which has passed through the bioceramic member 4-12 is made focused onto one side of the bioceramic member 4-12. In this manner, the maximum thermal efficiency is obtained with a small heat source. Of course, the coated film 4-13 may well be made to surround the total surface of the bioceramic member 4-12.

The cap part 4-2 includes: a guide hole 4-14 for receiving a protruded part 4-9 of the body part 4-1 and the heating part 4-3; and a female threaded part 4-16 for being threadably coupled to a male threaded part 4-15 of

the body part 4-1.

In the structure of this embodiment, the socket 4-8 and the plug 4-10 may be omitted, so that the heating wire 4-11 of the bioceramic member 4-12 can be directly  
5 connected to an output terminal of the polymer switch 4-7. Further, the bioceramic member 4-12 or the coated layer 4-13 surrounding the bioceramic member 4-12 may be omitted, so that the heating wire 4-11 can directly used.

10 The apparatus of the present invention constituted as described above can be used in the following manner.

First the cap part 4-2 which has been threadably coupled to the body part 4-1 is turned anti-clockwise, and thus, the cap part 4-2 is detached from the body part 4-1.  
15 Then if the on-off switch 4-6 is turned on, an electric current is supplied from the battery 4-4 through the input terminal to the polymer switch 4-7. This electric current flows through the output terminal of the polymer switch 4-7 and the socket 4-8 and the plug 4-10 of the heating part  
20 4-3 to the heating wire 4-11 of the bioceramic member 4-12 to generate heat.

The electromagnetic waves which have been generated from the heating wire 4-11 are absorbed into the bioceramic member 4-12, and the heat is focused onto the portion of  
25 the bioceramic where the coated film 4-13 is not formed. With this focused heat, the eyelashes can be easily dressed in the desired form.

Since the heating part 4-3 is fixed to the body part 4-1, if the heating part 4-3 is damaged after a long use,  
30 only the heating part 4-3 can be replaced.

Further, a temperature sensitive substance 4-5 is coated on a part of the surface or the entire surface of the heating part 4-3, so that a color change would occur when the heating part 4-3 reaches a temperature level of  
35 45°C. In this manner, the user can recognize the usable

temperature level of the apparatus.

<Fourth embodiment>

FIG. 8 illustrates still another embodiment of the  
5 apparatus of the present invention. FIG. 9 is a  
longitudinal sectional view of FIG. 8.

As shown in these drawings, the beauty art apparatus  
includes: a body part 5-1 with a battery 5-4 installed  
therein; and first and second heating parts 5-2 and 5-3  
10 coupled to the body part 5-1.

The body part 5-1 includes: a battery 5-4 installed  
within the body part 5-1; a positive-negative terminal 5-5  
for fixing the battery 5-4 to the inside of the body part  
5-1; a polymer switch 5-7 installed within the body part  
15 5-1 in such a manner as to electrically connect its input  
terminal and the terminal 5-5 together; a connecting rod  
5-8 installed at the center of a dispersing plate 5-6 to  
be connected to the polymer switch 5-7; and first and  
second switches 5-9 and 5-10 installed between the  
20 dispersing plate 5-6 and the terminal 5-5. The first and  
second switches 5-9 and 5-10 slide along a guide 5-11 which  
is formed in the body part 5-1.

The first and second heating parts 5-2 and 5-3 receive  
electric power from the polymer switch 5-7 to generate heat  
25 up to a temperature of 65 - 80°C.

The first heating part 5-2 includes: a first socket  
5-12 with its one end connected to a bottom of the first  
switch 5-9; a first plug 5-13 connected to another end of  
the first socket 5-12; a ceramic heat generating means 5-  
30 14 connected to the first plug 5-13 and accommodating a  
heating wire (not illustrated); and a first spring 5-15  
installed between the first switch 5-9 and the dispersing  
plate 5-6, and making the first socket 5-12 pass through.

The second heating part 5-3 includes: a second socket  
35 5-16 with its one end connected to a bottom of the second

switch 5-10; a second plug 5-17 connected to another end of the second socket 5-16; a heating wire 5-18 connected to the second plug 5-17 and with brushes 5-20 attached thereon; a second spring 5-16 installed between the second switch 5-10 and the dispersing plate 5-6, and making the second socket 5-16 pass through.

The first and second sockets 5-12 and 5-16 and the output terminal of the polymer switch 5-7 (which is connected to a connecting rod 5-8) are disposed on the dispersing plate 5-6 in such a manner that they would not be interfered by each other, by being arranged in the form of +. That is, the first and second sockets 5-12 and 5-16 are symmetrically disposed across the connecting rod 5-8, while the output terminals of the polymer switch 5-7 are symmetrically disposed across the connecting rod 5-8, apart by 90 degrees from the first and second sockets 5-12 and 5-16.

In the ceramic heat generating means 5-14, the coated film is formed on a part or entire surface of the heat generating means 5-14, so that a part or whole of the means 5-14 would be open like in the third embodiment. The polymer switch 5-7 may be substituted by another kind of switch or a fuse like in the first to third embodiments.

The apparatus of the present invention constituted as described above can be used in the following manner.

When the eyelashes are to be coated with the mascara fluid by using the ceramic heat generating means 5-14, a force is imposed on the first switch 5-9 of the body part 5-1. Thus if the switch 5-9 is pressed to compress the first spring 5-15, then the first switch 5-9 slides along the guide 5-11 while compressing the first spring 5-15. Thus the first switch 5-9 contacts with the bottom of the guide 5-11. That is, owing to the imposed force, the first switch 5-9 compresses the first spring 5-15, while sliding along the guide 5-11. When the first switch 5-9

arrives at the bottom of the guide 5-11, the first switch 5-9 is slightly inserted into the interior of the body part 5-1 owing to the imposed force. Then owing to the elastic force of the first spring, the top of the first switch 5-9 is engaged to the bottom of the guide 5-11, with the result that the first switch 5-9 is fixed.

Thus when the first switch 5-9 is fixed, the socket 5-14 with its one end connected to the first switch moves as much as the first switch 5-9. Because of the moving of the socket 5-14, the plug 5-13 and the ceramic heat generating means 5-14 move. At the same time, the ceramic heat generating means 5-14 protrudes through the groove 5-21 to the outside. The ceramic heat generating means 5-14 moves along the tapered portion of the body part 5-1 to be exposed to the outside. Under this condition, one end of the socket 5-12 contacts with the connecting rod 5-8 which projects from the center of the dispersing plate 5-6. As a result, power is supplied to the ceramic heat generating means 5-14.

When the ceramic heat generating means 5-14 is heated, the eyelashes can be dyed with the mascara fluid, and can be curled by using the ceramic heat generating means 5-14.

Meanwhile, the second switch 5-10, the second spring 5-19, the socket 5-16 and the plug 5-17 are installed in the same manner as the first switch 5-9, the first spring 5-15, the socket 5-12 and the plug 5-13. Therefore, in the case where the heating wire 5-18 with the brushes wound thereon is used, if the second switch 5-10 is turned on, the heating wire 5-18 with the brushes 5-20 attached thereon move along the inside of the tapered portion of the body part 5-1, until the heating wire 5-18 with the brushes 5-20 is exposed to the outside. Like the socket 5-12, one end of the socket 5-16 contacts with the connecting rod 5-8 which projects from the center of the dispersing plate 5-6. Consequently, power is supplied to

the heating wire 5-18.

If the heating wire 5-18 with the brushes 5-20 wound thereon is to be used during the use of the ceramic heat generating means 5-14, or if the ceramic heat generating means 5-14 is to be used during the use of the heating wire 5-18 with the brushes 5-20 wound thereon, then the relevant switch 5-9 or 5-10 is turned on, so that the projected parts 5-22 and 5-23 are contacted together. If the ceramic heat generating means 5-14 is under the use, the projected part 5-23 of the second switch 5-10 is contacted to the projected part 5-22 of the first switch. Therefore, the first switch 5-9 which has been engaged to the guide 5-11 owing to the elastic force of the first spring 5-15 is pushed, with the result that the contact between the guide 5-11 and the first switch 5-9 is released. When the first switch 5-9 is released from the guide 5-11, the first switch 5-9 slides along the guide 5-11 owing to the elastic force of the first spring 5-15 to be restored to the original position. Meanwhile, the second switch 5-10 slides along the guide owing to the force imposed on it until the second switch 5-10 contacts to the bottom of the guide to be secured thereto. Thus when the top of the second switch 5-10 contacts to the bottom of the guide, the heating wire 5-18 with the brushes 5-20 wound thereon protrudes to the outside through the groove 5-21, while the ceramic heat generating means 5-14 withdraws into the body part 5-1.

The ceramic heat generating means 5-14 of the first heating part 5-2 is heated by the power source, and therefore, even if an insulating rod having brushes 5-18 is connected to one end of the second plug 5-17 of the second heating part 5-3, there occurs no problem. That is, first the eyelashes can be dyed with the mascara fluid by using the second heating part 5-3 with the insulating rod and the brushes installed therein, and then, the



eyelashes can be curled upward by using the first heating part 5-2.

## 5 INDUSTRIAL APPLICABILITY

According to the present invention as described above, the heating part can be heated by using a battery, so that the eyelashes can be dressed without being restricted by the site, thereby ensuring convenience. Further, the  
10 curling can be carried out simultaneously, and therefore, the trouble of having to carry out the dressing of eyelashes very frequently can be avoided.

Further, a ceramic material is used, so that the harmful electromagnetic waves can be absorbed. Further,  
15 a coating is done in such a manner that heat can be focused to the desired position. Therefore, the working efficiency is promoted, and the dressed eyelashes can maintain the formulated shape for a long time.

Further, a temperature sensitive substance is coated  
20 on the heating part, so that the optimum temperature can be recognized. If the temperature rises above its upper limit, a polymer switch disconnects the power source, and therefore, the safety is ensured.

25

30

35

## WHAT IS CLAIMED IS:

1. A beauty art apparatus for dressing eyelashes, comprising:
  - 5 a body part with a power source installed therein;
  - a heating part of a heating wire structure or of a ceramic spiral structure with brushes installed thereon, said heating part being connected one end of said body part and electrically connected to said power source of said
  - 10 body part; and
  - a cap part for being coupled to the one end of said body part to protect said heating part,
  - whereby eyelashes can be dyed with a mascara fluid and curled by using said heating part,
  - 15
2. The beauty art apparatus as claimed in claim 1, wherein said body part comprises:
  - a battery inserted into said body part;
  - a positive-negative terminal for connecting said
  - 20 battery to an inside of said body part;
  - an on-off switch electrically connected to said terminal, and installed on a tapered leading portion of said body part; and
  - a protruded part extending from a center of said
  - 25 tapered leading end of said body part, for fixing said heating part.
3. The beauty art apparatus as claimed in any one of claims 1 and 2, wherein said body part comprises a
- 30 polymer switch with its input terminal electrically connected to said on-off switch, or fuse or another switch.
4. The beauty art apparatus as claimed in claim 1, wherein, on a portion adjacent to said heating part,
- 35 there is coated with a temperature sensitive substance to

show an optimum heating level through a change of color.

5. The beauty art apparatus as claimed in claim 1, further comprising:

5 a socket formed in said projected part of said body part to be connected to said power source; and

a plug mated with said socket to connect said heating part to said body part.

10 6. The beauty art apparatus as claimed in any one of claims 1 and 5, further comprising a curved or straight heating wire with a plurality of brushes installed thereon, said heating wire being connected to said plug of said heating part.

15 7. The beauty art apparatus as claimed in claim 6, wherein said heating wire is directly connected to said power source of said body part.

20 8. The beauty art apparatus as claimed in claim 6, wherein said cap part comprises:

a mascara fluid vessel for storing a mascara fluid;  
a guide hole communicating to said mascara fluid vessel, and for receiving said protruded part of said body part and said plug of said heating part; and

25 a female threaded part for being threadably coupled to a male threaded part of said body part.

30 9. A beauty art apparatus for dressing eyelashes, comprising:

a body part comprising: a battery installed within said body part; a positive-negative terminal for fixing said battery; a polymer switch with its input terminal electrically connected to said positive-negative terminal;  
35 a connecting rod projecting from a center of a dispersing

plate to be connected to said polymer switch; and first and second switches installed between said dispersing plate and said positive-negative terminal, for sliding along a guide;

5           a first heating part comprising: a first socket with its one end connected to a bottom of said first switch; a first plug connected to another end of said first socket; a ceramic heat generating means connected to said first plug and accommodating a heating wire; and a first spring  
10 installed between said first switch and said dispersing plate, and making said first socket pass through; and

          a second heating part comprising: a second socket with its one end connected to a bottom of said second switch; a second plug connected to another end of said  
15 second socket; a heating wire connected to said second plug and with brushes attached thereon; a second spring installed between said second switch and said dispersing plate, and making said second socket pass through,

          whereby eyelashes are dyed and curled by using said  
20 brush/ceramic heat generating means, and said brushes and said ceramic heat generating means can be used selectively by means of said first and second switches.

10. The beauty art apparatus as claimed in claim 9,  
25 wherein brushes are installed on an end of said second plug of said second heating part.

11. The beauty art apparatus as claimed in claim 9,  
wherein said ceramic heat generating means is coated partly  
30 or entirely to open it partly or entirely.

12. A beauty art apparatus for dressing eyelashes, comprising:

          a body part comprising: a battery installed within  
35 said body part; a positive-negative terminal for fixing

said battery; an on-off switch electrically connected to said terminal, and installed on a tapered portion of said body part; a polymer switch with its input terminal electrically connected to said positive-negative terminal; and a protruded part projecting from a leading end of said body part, and having a socket connected to an output terminal of said polymer switch;

a heating part comprising: a plug fixed to said socket of said protruded part, for being connected to an output terminal of said polymer switch; a heat generating means including a heating wire (connected to a plug) and having a groove and a plurality of guide grooves; and a plurality of brushes fixed along a lower side of said heat generating means oppositely from a side where said grooves are formed; and

a cap part comprising: a female threaded part for being threadably coupled to a male threaded part of said body part; a guide hole communicating to a mascara fluid vessel, and for receiving said protruded part of said body part and said plug of said heating part, and having projected guiders for being inserted into the plurality of said guide grooves; and said mascara fluid vessel storing a mascara fluid and communicating to said guide hole,

whereby eyelashes are curled by using said grooved part of said heat generating means, and are dyed with a mascara fluid by using the plurality of said brushes.

13. The beauty art apparatus as claimed in claim 12, further comprising a filter to neatly wipe out the mascara fluid from said grooved part of said heat generating means.

14. The beauty art apparatus as claimed in claim 12, wherein a heating wire of said heating part is directly connected to said polymer switch of said body part.

15. A beauty art apparatus for dressing eyelashes, comprising:

5 a body part comprising: a battery installed within said body part; a positive-negative terminal for fixing said battery; an on-off switch electrically connected to said terminal, and installed on a tapered portion of said body part; a polymer switch with its input terminal electrically connected to said positive-negative terminal; and a protruded part projecting from a tapered leading end  
10 of said body part, and having a socket connected to an output terminal of said polymer switch;

a heating part comprising: a plug mated with said socket of a protruded part, for being connected to an output terminal of said polymer switch; and a bioceramic  
15 member for accommodating a heating wire, said heating wire being connected to said plug; and

a cap part comprising: a guide hole for receiving a protruded part of said body part and said heating part; and a female threaded part for being threadably coupled to  
20 a male threaded part of said body part,

whereby eyelashes are curled by utilizing heat of said heating part.

16. The beauty art apparatus as claimed in claim 15,  
25 further comprising a coated film to make said bioceramic member partly open or entirely open.

17. The beauty art apparatus as claimed in claim 15, wherein a heating wire of said bioceramic member of said  
30 heating part is directly connected to an output terminal of said polymer switch.

1/9

FIG 1

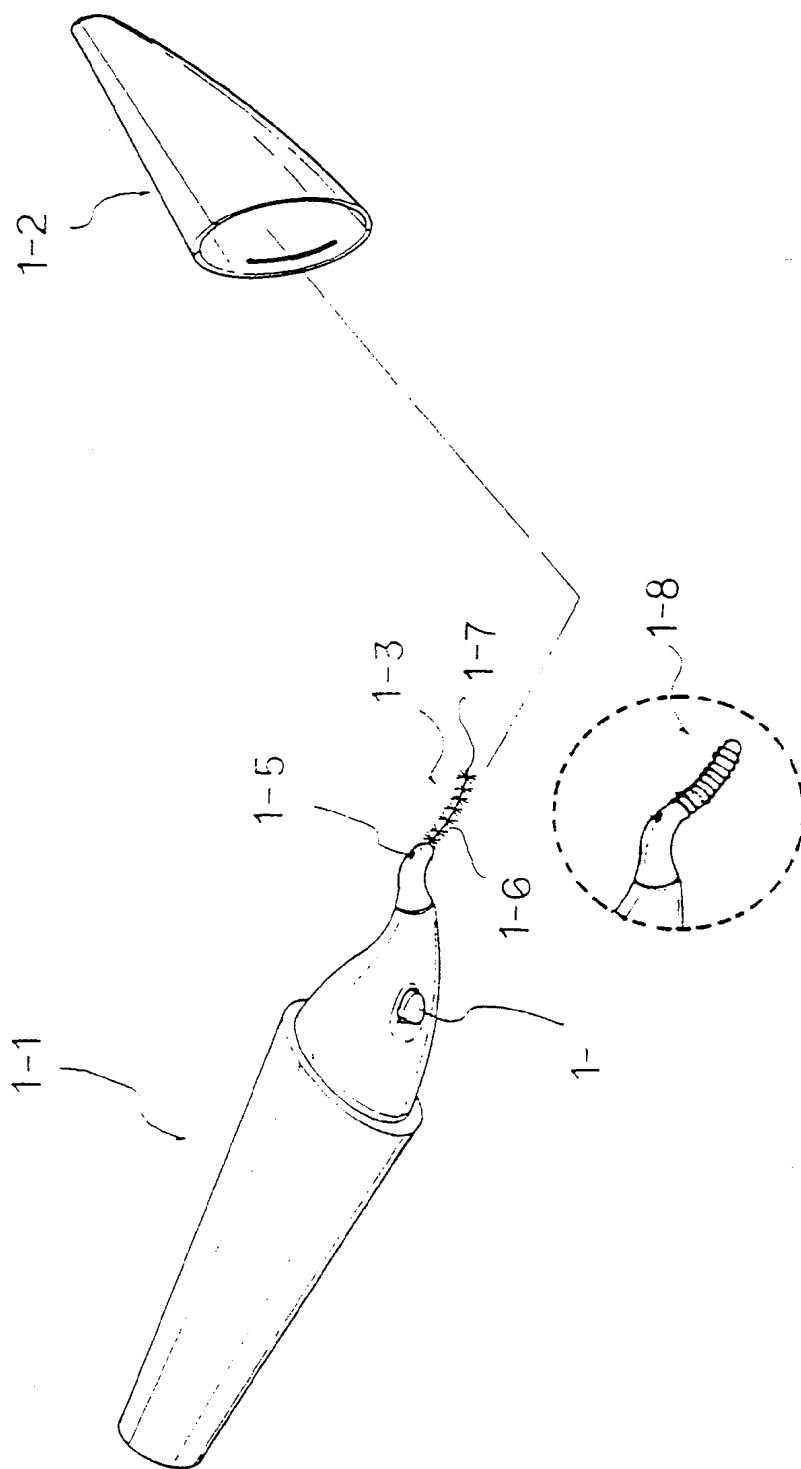
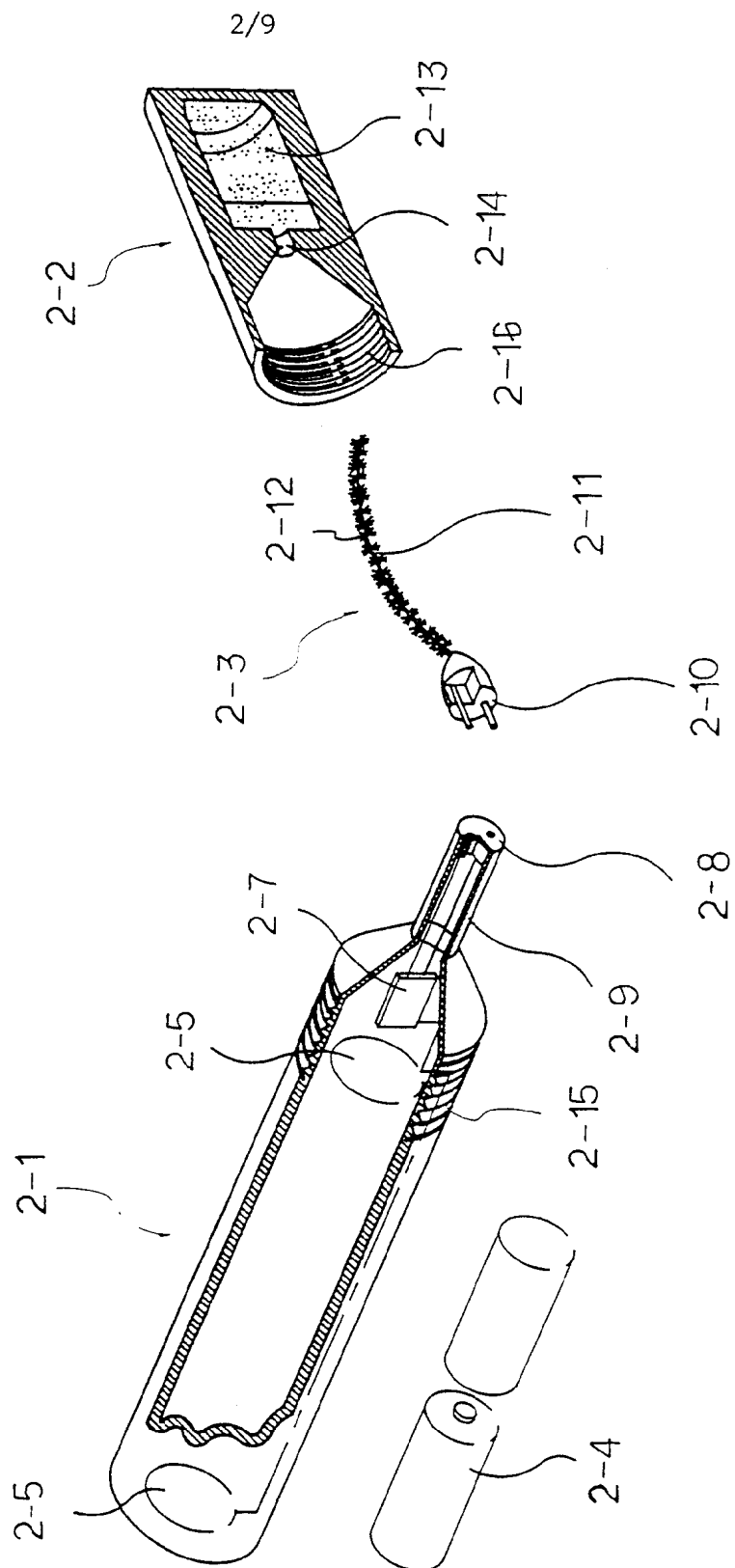


FIG 2



2/9



**FIG 3**

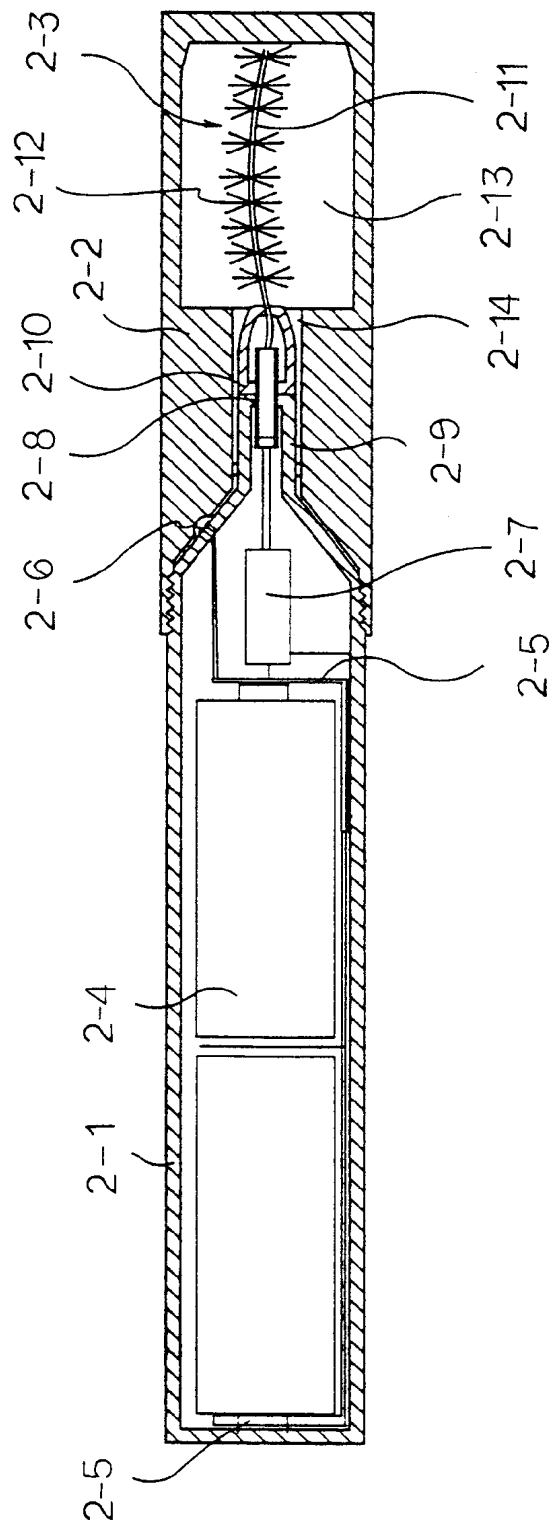


FIG 4

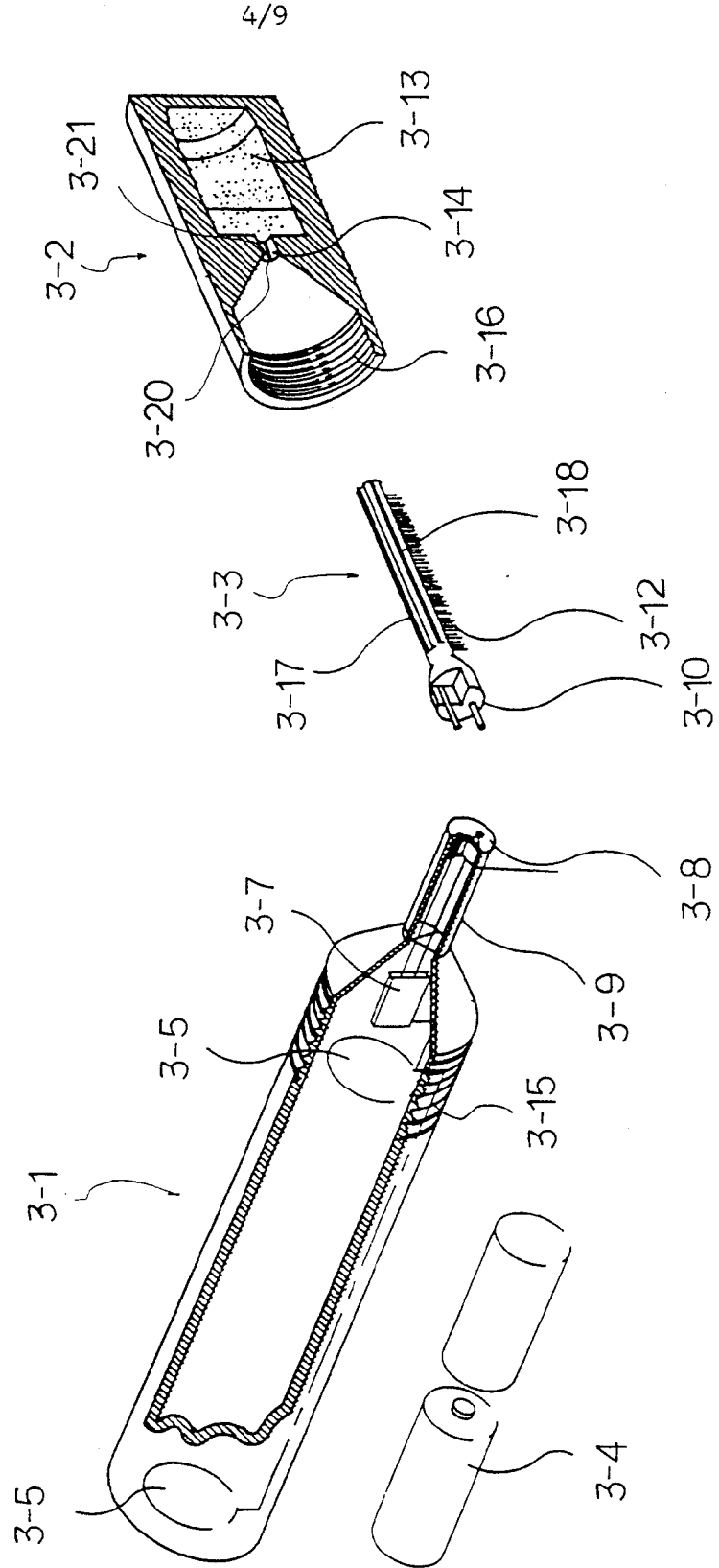
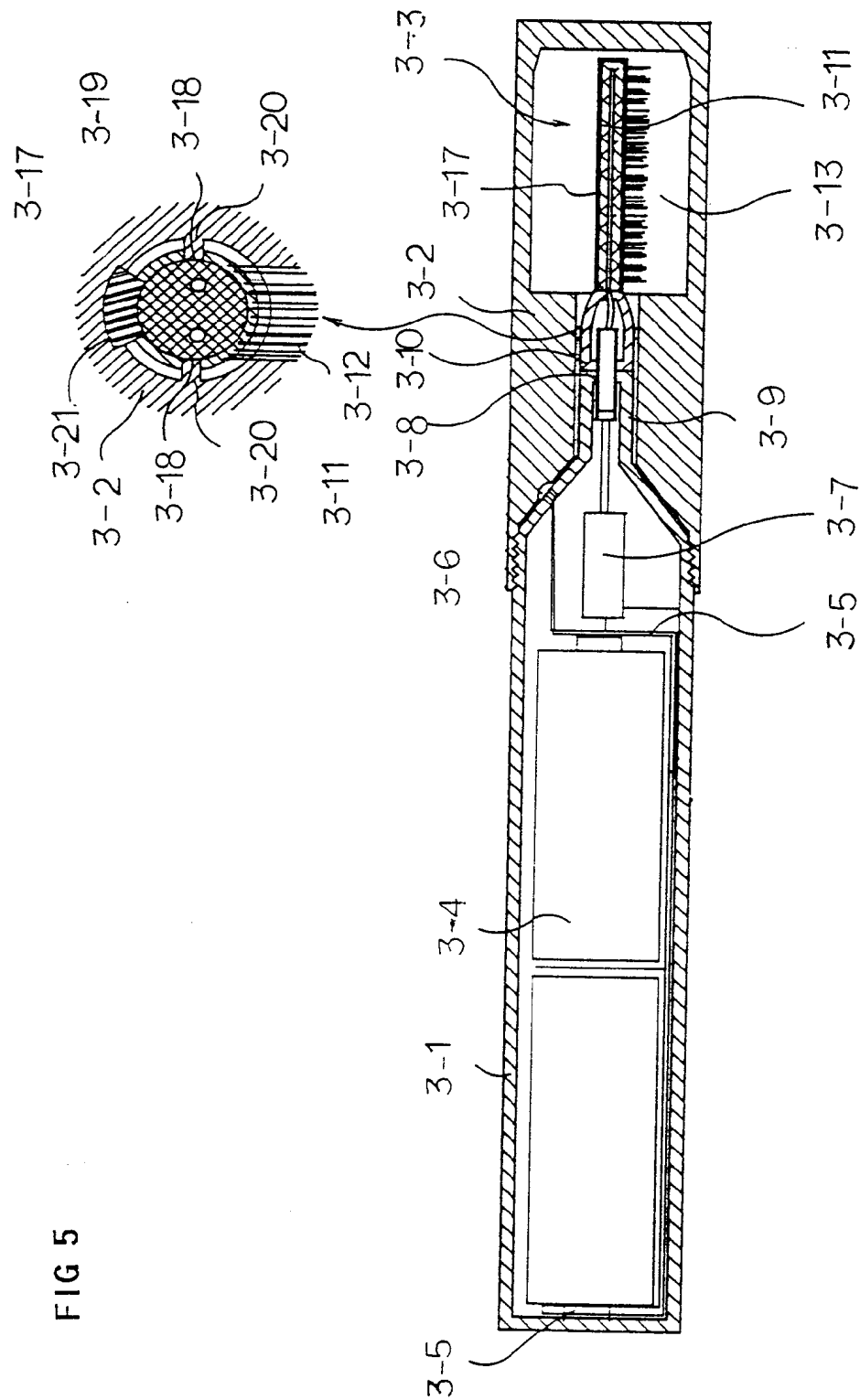
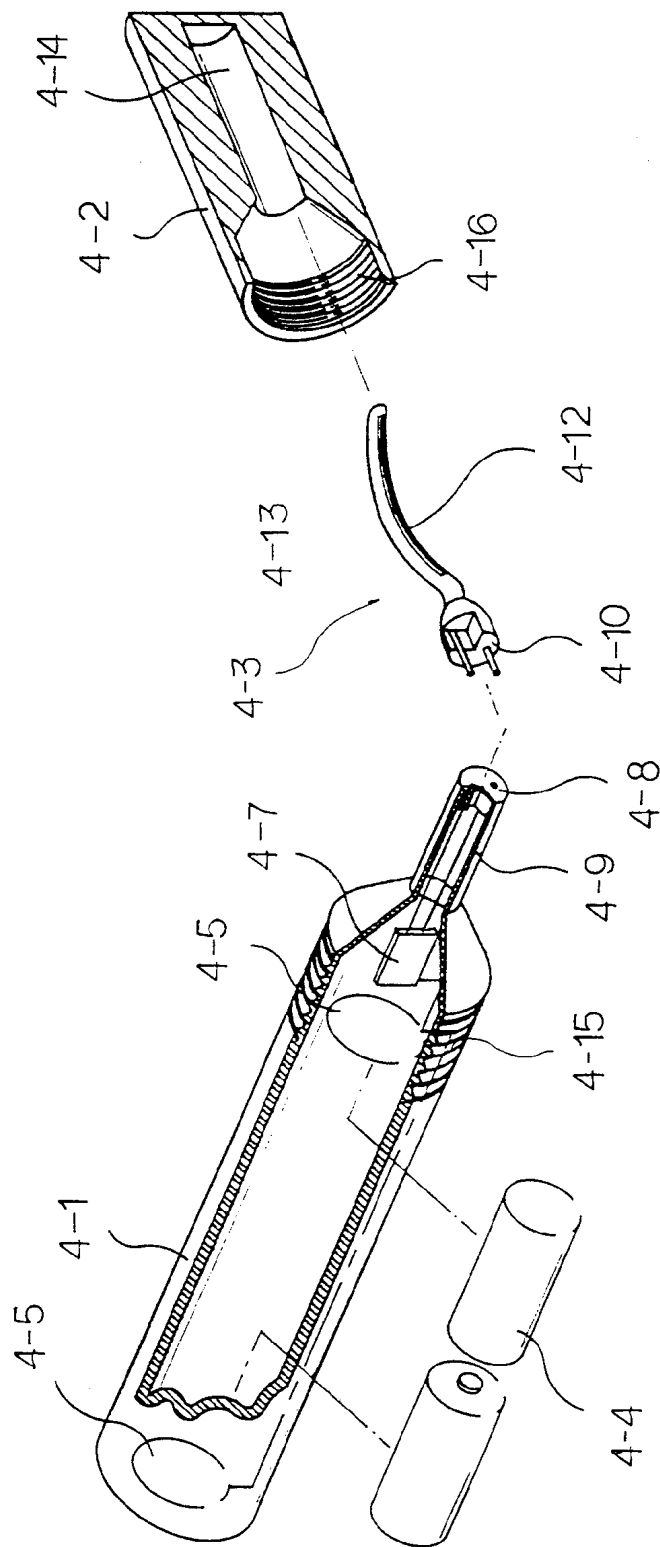


FIG 5



6/9

FIG 6



7/9

FIG 7

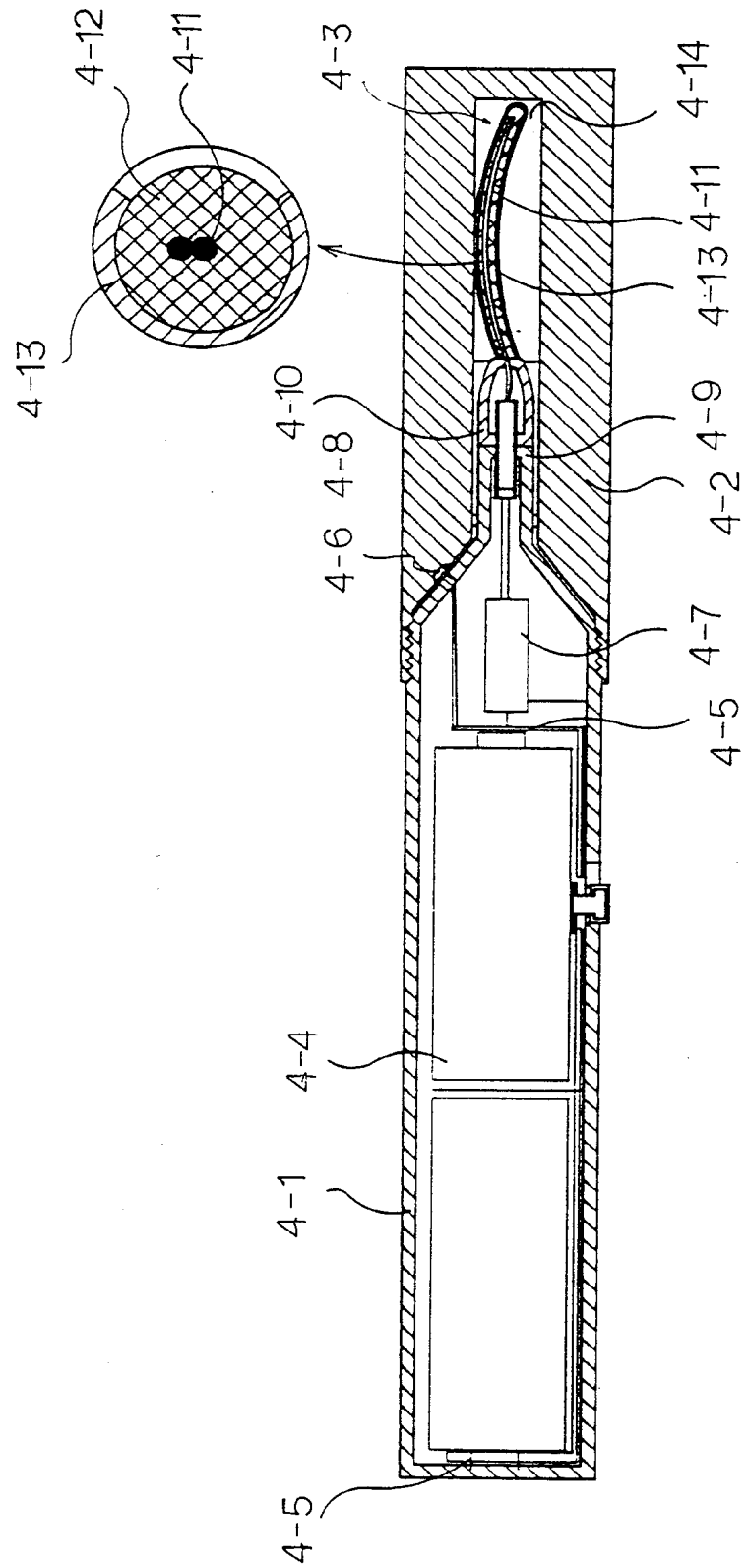


FIG 8

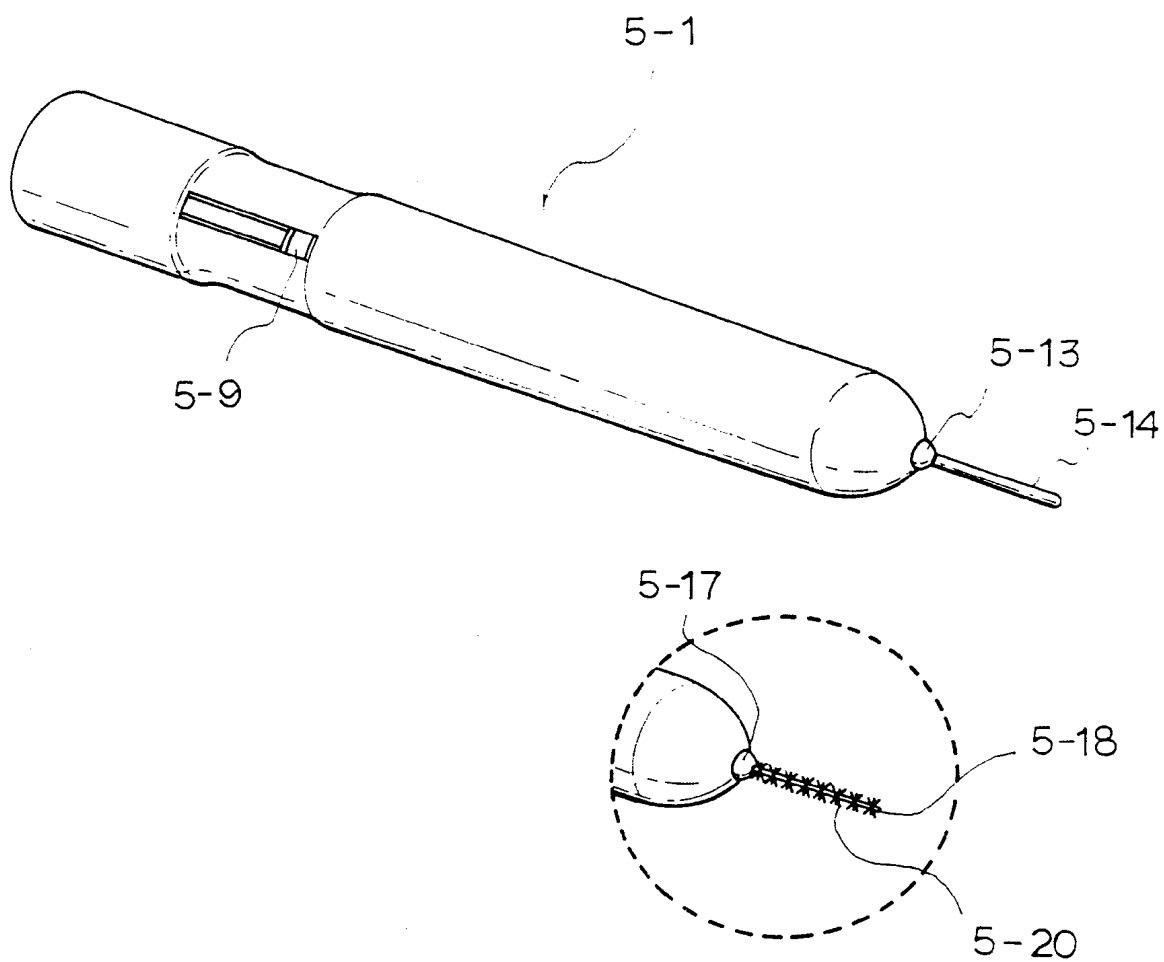


FIG 9

